ENGLAND GCSE CHEMISTRY AQA FOUNDATION · FINAL EXAM · 50 QUESTIONS

Final Exam — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A thermometer shows a patient's temperature is 39 degrees Celsius. Is this above or below normal body temperature?**

- A above normal
- B impossible to tell
- C exactly normal
- D below normal

Understand It with Pulse | Flag a mistake

2 **Paintbrushes are cleaned in water. Why does the paint wash off?**

- A the paint burns in the water
- B the paint melts in the water
- C the paint freezes in the water
- D the paint dissolves

Understand It with Pulse | Flag a mistake

3 **Hardcover books are stacked on a table. What force pulls them down?**

- A tension
- B gravity
- C air resistance
- D friction

Understand It with Pulse | Flag a mistake

4 **Paintbrushes apply paint to a wall. What is the paint made of?**

- A a single compound, nothing else
- B a single element, nothing else
- C pure water with nothing in it
- D a mixture of substances

Understand It with Pulse | Flag a mistake

5 **A sandwich provides energy. Which process releases energy from food in cells?**

A respiration

B fermentation

C photosynthesis

D digestion

Understand It with Pulse | Flag a mistake

6 **A yellow school bus is full of children. What is its mass like?**

A larger than when empty

B the same as when empty

C smaller than when empty

D zero

Understand It with Pulse | Flag a mistake

7 **A chocolate cake rises in the oven. What makes it rise?**

- A the flour melts
- B the egg evaporates
- C a gas is made
- D the sugar freezes

Understand It with Pulse | Flag a mistake

8 **Lemons taste sour. What does sour taste show?**

- A an acid is present
- B a metal is present
- C an alkali is present
- D a salt is present

Understand It with Pulse | Flag a mistake

9 **Fishing boats catch fish. What trophic level are the fish?**

A producers

B plants

C consumers

D decomposers

Understand It with Pulse | Flag a mistake

10 **A sailing ship floats. What force pushes it up?**

A upthrust

B friction

C air resistance

D gravity

Understand It with Pulse | Flag a mistake

11 **What did Mendeleev predict about the gaps in his table?**

- **A** the gaps would stay empty for ever
- **B** elements would be found to fill them
- **C** new groups would appear in the gaps one day
- **D** the table would need to be remade

Understand It with Pulse | Flag a mistake

12 **Why is diamond a good material for cutting tools?**

- **A** it conducts electricity very well
- **B** it is very hard
- **C** it is soft and easy to shape
- **D** it melts at a low temperature

Understand It with Pulse | Flag a mistake

13 **A reaction should make 20 g of product but makes 16 g. What is the percentage yield?**

- A 4%
- B 125%
- C 80%
- D 36%

Understand It with Pulse | Flag a mistake

14 **Will iron displace copper from its salt solution?**

- A yes
- B only with a catalyst
- C no
- D only when heated

Understand It with Pulse | Flag a mistake

15 **A student heats 100 g of water. Its temperature rises by 20 degrees Celsius. The specific heat capacity of water is 4.2 joules per gram per degree Celsius. How much energy is transferred to the water in kilojoules?**

- A 0.84 kJ
- B 84 kJ
- C 8.4 kJ
- D 16.8 kJ

Understand It with Pulse | Flag a mistake

16 **In an experiment, 40 cubic centimetres of gas are made in 10 seconds. What is the rate of the reaction?**

- A 2 cm^3/s
- B 4 cm^3/s
- C 400 cm^3/s
- D 8 cm^3/s

Understand It with Pulse | Flag a mistake

17 **Why are biodegradable polymers useful?**

A they are much stronger than others

B they do not pile up as waste

C they conduct electricity better

D they are cheaper to make always

Understand It with Pulse | Flag a mistake

18 **In a chromatogram, a spot moves 6 cm and the solvent moves 12 cm. What is the Rf value?**

A 0.6

B 0.5

C 1

D 0.65

Understand It with Pulse | Flag a mistake

19 **Which human activity releases methane?**

A burning coal

B planting trees

C driving electric cars

D farming cattle

Understand It with Pulse | Flag a mistake

20 **Which stage of a life cycle assessment covers digging up raw materials?**

A use

B manufacture

C disposal

D extraction

Understand It with Pulse | Flag a mistake

21 **How many electrons can the first shell hold?**

A 8

B 4

C 1

D 2

Understand It with Pulse | Flag a mistake

22 **An ice cream cone melts in the Sun. What is happening to the particles in the ice cream?**

A they gain energy and move more

B they lose energy and slow down a lot

C they stop moving

D they get smaller

Understand It with Pulse | Flag a mistake

23 **The maximum possible mass of product is 40 g. A student makes 36 g. What is the percentage yield?**

- A 90%
- B 80%
- C 180%
- D 100%

Understand It with Pulse | Flag a mistake

24 **Why do the carbon anodes in aluminium extraction need replacing?**

- A they dissolve in the aluminium
- B they melt in the hot electrolyte
- C they burn away in oxygen
- D they are used up making cryolite

Understand It with Pulse | Flag a mistake

25 **Why are hydrogen fuel cells not yet used in most cars?**

A hydrogen fuel cells are too heavy

B fuel cells make too much electricity

C hydrogen is hard to store safely

D few places sell hydrogen fuel

Understand It with Pulse | Flag a mistake

26 **What is a reversible reaction?**

A a reaction that needs a catalyst

B a reaction that can go both ways

C a reaction that makes two products

D a reaction that never finishes

Understand It with Pulse | Flag a mistake

27 **What is the relative formula mass of the alkane C_4H_{10}?**

A 60

B 70

C 58

D 56

Understand It with Pulse | Flag a mistake

28 **In a chromatogram, a spot moves 3 cm and the solvent moves 8 cm. What is the Rf value?**

A 0.47

B 0.75

C 0.38

D 0.53

Understand It with Pulse | Flag a mistake

29 **What is one effect of climate change on weather?**

A less rain everywhere

B more extreme weather

C weather stays the same

D colder summers everywhere

Understand It with Pulse | Flag a mistake

30 **Why do plants need nitrogen?**

A to make proteins for growth

B to make strong roots

C to make seeds for sowing

D to make flowers and fruit grow well

Understand It with Pulse | Flag a mistake

31 **Which of these is a non-metal?**

A copper

B sodium

C iron

D sulfur

Understand It with Pulse | Flag a mistake

32 **An atom has 6 protons. How many electrons does the neutral atom have?**

A 7

B 8

C 5

D 6

Understand It with Pulse | Flag a mistake

33 **What is the mass of 4 moles of a substance with a relative formula mass of 40?**

- A 160 g
- B 320 g
- C 80 g
- D 170 g

Understand It with Pulse | Flag a mistake

34 **How many moles are there in 20 g of a substance with a relative formula mass of 20 ?**

- A 3
- B 2
- C 1
- D 0.5

Understand It with Pulse | Flag a mistake

35 **Which pair of metals gives the biggest voltage in a cell?**

A copper and zinc in the same cell

B magnesium and copper

C iron and copper in the same cell

D zinc and iron in the same cell

Understand It with Pulse | Flag a mistake

36 **A reaction should make 100 g of product but only makes 50 g. What is the percentage yield?**

A 100%

B 40%

C 60%

D 50%

Understand It with Pulse | Flag a mistake

37 **What is the test for an alkene?**

A universal indicator turns red in acid

B limewater turns cloudy with gas

C bromine water turns colourless

D a lighted splint pops loudly

Understand It with Pulse | Flag a mistake

38 **A cup of coffee is hot. How is energy transferred to the air?**

A by radiation only, from the surface

B by evaporation only, from the top

C by conduction and convection

D by condensation on the cold cup

Understand It with Pulse | Flag a mistake

39 **Where did the water in the oceans come from?**

- A rivers flowing from the land
- B ice melting at the poles
- C water vapour from volcanoes
- D rain from the clouds in the sky

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40 **Why is chlorine added to drinking water?**

- A to remove solids
- B to make it taste better
- C to kill bacteria
- D to add fluoride

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41 **An element, magnesium, has isotopes. 79 percent have a mass of 24 and 10 percent have a mass of 25 and 11 percent have a mass of 26. What is the relative atomic mass of magnesium?**

- A 24.3
- B 24.8
- C 25.3
- D 23.3

Understand It with Pulse | Flag a mistake

42 **Why are nanoparticles used in sun cream?**

- A they cool the skin down quickly
- B they make the cream smell pleasant
- C they make the cream waterproof
- D they block ultraviolet light

Understand It with Pulse | Flag a mistake

43 **What is the relative formula mass of sulfuric acid, H_2SO_4?**

- **A** 82
- **B** 98
- **C** 114
- **D** 66

Understand It with Pulse | Flag a mistake

44 **What gas is made at the positive electrode in aluminium extraction?**

- **A** aluminium metal from the ore
- **B** carbon dioxide
- **C** hydrogen gas from the acid used
- **D** oxygen gas from the air around it

Understand It with Pulse | Flag a mistake

45 **What is one disadvantage of hydrogen fuel cells?**

- **A** they use a lot of water
- **B** they make carbon dioxide
- **C** they are noisy when running
- **D** hydrogen is hard to store

Understand It with Pulse | Flag a mistake

46 **In an experiment, 60 cubic centimetres of gas are made in 30 seconds. What is the rate of the reaction?**

- **A** 4 cm^3/s
- **B** 2 cm^3/s
- **C** 1800 cm^3/s
- **D** 1 cm^3/s

Understand It with Pulse | Flag a mistake

47 **Which fraction is used for road surfaces?**

A kerosene

B naphtha

C petrol

D bitumen

Understand It with Pulse | Flag a mistake

48 **How many atoms of hydrogen are there in one molecule of ammonia?**

A 3

B 5

C 2

D 4

Understand It with Pulse | Flag a mistake

49 **A castle wall is made of stone. What type of rock is limestone?**

A metamorphic

B volcanic

C igneous

D sedimentary

Understand It with Pulse | Flag a mistake

50 **How does sacrificial protection work?**

A the iron is kept very dry

B the iron is coated in oil

C a more reactive metal corrodes instead

D the iron is painted over with a very thick coat

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	A	**18.**	B	**35.**	B
2.	D	**19.**	D	**36.**	D
3.	B	**20.**	D	**37.**	C
4.	D	**21.**	D	**38.**	C
5.	A	**22.**	A	**39.**	C
6.	A	**23.**	A	**40.**	C
7.	C	**24.**	C	**41.**	A
8.	A	**25.**	D	**42.**	D
9.	C	**26.**	B	**43.**	B
10.	A	**27.**	C	**44.**	B
11.	B	**28.**	C	**45.**	D
12.	B	**29.**	B	**46.**	B
13.	C	**30.**	A	**47.**	D
14.	A	**31.**	D	**48.**	A
15.	C	**32.**	D	**49.**	D
16.	B	**33.**	A	**50.**	C
17.	B	**34.**	C		

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